

Abstract

A system for creating lesions and assessing their completeness or transmurality. Assessment of transmurality of a lesion is accomplished by monitoring the impedance of the tissue to be ablated. Rather than attempting to detect a desired drop or a desired increase impedance, completeness of a lesion is detected in response to the measured impedance remaining at a stable level for a desired period of time, referred to as an impedance plateau. The mechanism for determining transmurality of lesions adjacent individual electrodes or pairs may be used to deactivate individual electrodes or electrode pairs, when the lesions in tissue adjacent these individual electrodes or electrode pairs are complete, to create an essentially uniform lesion along the line of electrodes or electrode pairs, regardless of differences in tissue thickness adjacent the individual electrodes or electrode pairs.